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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/115,229	07/14/1998	ANDRE SCHEELLEN	SLVAY-3741.0	1150

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EXAMINER

DYE, RENA

ART UNIT PAPER NUMBER

3627

DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/115,229

Applicant(s)

SCHEELEN ET AL.

Examiner

Rena L. Dye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 26-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Introduction***

1. The rejections of record as set forth in (paper no. 24), not repeated herein, have been withdrawn in view of Applicant's claims to the present claims.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 33 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "wherein talc is added in an amount effective to increase a creep resistance of said composition" is vague and unclear. Does the talc increase the creep resistance of the composition or the pipe made from the composition? Clarification is requested.

### ***Repeated Rejections of Record***

4. Claims 26-31 and 33-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al. (5,049,411).

Jenkins et al. teaches a high density polyethylene (HDPE) composition comprising from about 50 to about 95 weight percent of HDPE and from about 1 to about 30 weight percent of a filler which may be talc (Abstract). The term high density generally refers to densities in the range of about 0.94 to 0.965 g/cm<sup>3</sup>. The term polyethylene as used herein includes

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homopolymers of ethylene and copolymers of at least about 85 weight percent ethylene with up to about 15 weight percent of one or more C<sub>3</sub> to C<sub>10</sub> alpha-olefins, such as 1-butene, 1-hexene, etc. Preferably the copolymers include from about 0.1 to about 3 weight percent of the alpha-olefin comonomer (column 1, lines 56-66). The talc is employed as a filler in the composition. In particular when used with HDPE the talc is preferably in the form of particles of a size in the range of about 0.5 to 50 microns. The talc is employed in amounts ranging from about 1 to about 30 weight percent. Jenkins et al. further teach shaping of the composition into an article such as a packaging material, or an envelope (column 1, lines 32-36). The composition is formed into a *seamless* tube by extrusion and then later formed into an envelope (column 2, line 50 to column 3, line 10).

Since Jenkins et al. teaches that which appears to be identical to that recited in the present claims, with respect to HDPE, it is the Examiner's position that the recited melt flow would be inherent. The recited particle size distribution between 0.2 and 15 microns, and mean particle size between 1 and 5 microns would be well within the disclosed particle size range taught by Jenkins et al.

Since Jenkins et al. teach talc merely used as a filler, it would have been obvious to one having ordinary skill in the art to have used less filler if e.g. manufacturing costs were not an issue. Since Jenkins et al. teaches talc having a lower end range of 1%, the Examiner would like to note that only a very slight decrease in the weight % of talc would fall within the presently claimed range, i.e. .94 wt%, .95 wt%, etc.

The recited "talc is added in an amount effective to increase a creep resistance of said composition" and "wherein the composition is characterized by creep resistance (t), wherein t=creep resistance expressed in terms of time to fracture, measure according to ISO Standard 1167 (1996) at 20 C on a pipe having a diameter of 50 mm and a thickness of 3 mm and under a

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circumferential stress of 12.4", would be met by the polyethylene composition made obvious by Jenkins et al.

5. Claims 26-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wooster et al. (5,631,069).

Wooster et al. teaches a polyethylene composition used to mold articles. The molded material is comprised of high molecular weight linear polyethylene and a substantially linear ethylene/ -olefin interpolpolymer. The material has a density in the range of about 0.923 to about 0.95 g/cm<sup>3</sup> and has excellent impact resistance (Abstract). The polyethylene material can be molded into articles, such as pipes, tubes, or molded parts (column 1, lines 23-31). The molded material can be made produced from blends of a) high molecular weight high density polyethylene (HDPE) and b) linear low density polyethylene (LLDPE), VLDPE, etc. (column 4, lines 1-11).

Both HDPE and LLDPE are prepared in a similar manner where ethylene is copolymerized with an -olefin such as butene or hexene (column 4, lines 47-62). Although not generally required the molded material can also contain additives to enhance antiblocking and coefficient of friction characteristics including talc (column 14, lines 13-29). The molded polyethylene material can be produced by known processes, for example by casting processes, compression molding, or preferably, by extrusion (column 13, lines 45-48). Although not expressly taught, it is the Examiner's position that the teaching of injection molding is a well known and conventional process for making pipes, and would have been an obvious method for making the disclosed articles.

Since Wooster et al. teaches that it is known to include additives, such as talc, in molded polyethylene compositions, it would have been obvious to one having ordinary skill in the art to have included the talc in an effective amount to have imparted antiblocking and coefficient of friction characteristics. The determination of such amount of talc to impart such properties is deemed to be routine optimization and well within the level of skill of the ordinary artisan. Furthermore, it would have been obvious to one having ordinary skill in the art to have used more or less of the talc additive if manufacturing costs were of an issue.

Although Wooster et al. specifically fails to teach the molding of pipe couplings from the polyethylene composition, pipe couplings are *prima facie* obvious over the teaching of pipe. Pipes and couplings are designed to work in the same system, and a pipe may well be used as a coupling, i.e. if it is used as an intermediate between two pipes it has "coupled" the two pipes.

Since Wooster et al. teaches that which appears to be identical to that recited in the present claims, with respect to the presently claimed polyethylene, it is the Examiner's position that the recited melt flow would be inherent. The recited particle size distribution is between 0.2.

The recited "talc is added in an amount effective to increase a creep resistance of said composition" and "wherein the composition is characterized by creep resistance (t), wherein t=creep resistance expressed in terms of time to fracture, measure according to ISO Standard 1167 (1996) at 20 C on a pipe having a diameter of 50 mm and a thickness of 3 mm and under a circumferential stress of 12.4" would be met by the polyethylene composition made obvious by Wooster et al.

### ***Response to Arguments***

6. Applicant's arguments filed on December 18, 2002 have been fully considered but they are not persuasive.

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In response to Applicant's arguments regarding the Jenkins reference, it remains to be the Examiner's position that since Jenkins teaches the use of talc merely as a filler, it would have been obvious to one having ordinary skill in the art to have used less filler if e.g. manufacturing costs were not an issue.

With respect to Applicant's arguments regarding the Wooster et al. reference, it is the Examiner's position that it would have been obvious to one having ordinary skill in the art to have included the talc in an effective amount to have imparted antiblocking and coefficient of friction characteristics. The determination of such amount of talc to impart such properties is deemed to be routine optimization and well within the level of skill of the ordinary artisan.

In reconsidering Applicant's declaration of August 9, 2001 the Examiner finds the declaration to be much narrower in scope than that of the presently claimed invention. Firstly, Applicant uses a sample of 1 gram of talc to 989.9 g of polyethylene (Example I), and compares it to a sample that includes over 10 times that amount of talc. The new comparative example includes 10.5 g of talc to 980.4 g of polyethylene. Applicant appears to show unexpected results for .1 part of talc per 100 parts polyethylene (or  $1/10^{\text{th}}$  of that of the new comparative example). The present claims recite "in an amount of less than 1 part per 100 parts by weight of polyethylene" which covers a much broader range than 0.1 part per 100 parts polyethylene. Therefore, the declaration is much narrower in scope than the presently claimed invention. From this Applicant has not clearly shown that the addition of less than 1 part per 100 by weight of talc has particularly beneficial effects (over the entire range), as argued by Applicant.

Furthermore, the broad claims 26 and 38 also do not recite the function of the talc, which is to "increase a creep resistance of said composition."

***Allowable Subject Matter***

7. The examiner would be willing to allow claims directed to the following recited subject matter:

The prior art of record fails to teach or suggest an article of manufacture selected from the group consisting of a pipe and a pipe coupling comprising a polyethylene-based composition wherein the polyethylene exhibits a standard density, measured at 23 °C according to ASTM Standard D 972, of greater than  $940 \text{ kg/m}^3$  and wherein the polyethylene-based composition comprise talc in an amount of .1 part per 100 parts by weight of polyethylene to provide creep resistance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37



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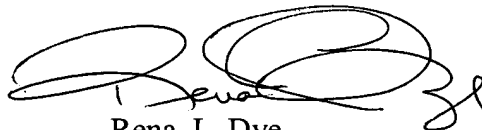
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rena L. Dye whose telephone number is 703-308-4331. The examiner can normally be reached on Monday-Thursday 8:30 AM - 7:0 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on 703-308-5183. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

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10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

A handwritten signature in black ink, appearing to read 'Rena L. Dye', with a stylized flourish at the end.

Rena L. Dye  
Primary Examiner  
Art Unit 3627

R. Dye  
February 3, 2003